CLAIMS

1. A peptide analogue of GIP (1-42) comprising at least 15 amino acid residues from the N terminal end of GIP (1-42) having a least one amino acid substitution or modification at position 1-3 and not including Tyr^1 glucitol GIP (1-42).

2. A peptide analogue as claimed in claim 1 including modification by fatty acid addition at an epsilon amino group of at least one lysine residue.

3. A peptide analogue of biologically active GIP (1-42) wherein the analogue is Tyr^1 glucitol GIP (1-42) modified by fatty acid addition at an epsilon amino group of at least one lysine residue.

4. A peptide analogue as claimed in any of the preceding claims wherein the substitution or modification is chosen from the group comprising D-amino acid substitutions in 1, 2 and/or 3 positions and/or N terminal glycation, alkylation, acetylation or acylation.

5. A peptide analogue as claimed in any of the preceding claims wherein the amino acid in the 2 or 3 position is substituted by lysine, serine, 4-amino butyric, Aib, D-alanine, Sarcosine or Proline.

6. An analogue as claimed in any of the preceding claims wherein the N terminus is modified by one

of the group of modifications include glycation, alkylation, acetylation or by the addition of an isopropyl group.

7. Use of an analogue as claimed in any of the preceding claims in the preparation of a medicament for the treatment of diabetes.

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8. A pharmaceutical composition including an analogue as claimed in any of the preceding claims.

9. A pharmaceutical composition as claimed in claim 8 in admixture with a pharmaceutically acceptable excipient.

10. A method of N-terminally modifying GIP or analogues thereof the method comprising the steps of synthesising the peptide from the C terminal to the penultimate N terminal amino acid, adding tyrosine as a F-moc protected Tyr(tBu)-Wang resin, deprotecting the N-terminus of the tyrosine and reacting with modifying agent, allowing the reaction to proceed to completion, cleaving the modified tyrosine from the Wang resin and adding the modified tyrosine to the peptide synthesis reaction.

11. A method as claimed in claim 10 wherein the modifying agent is chosen from the group comprising glucose, acetic anhydride or pyroglutamic acid.

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